

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-51 (canceled)

Claims

52. A nucleic acid vector comprising:
- (a) a nucleic acid sequence encoding a human Tau protein;
  - (b) a nucleic acid sequence capable of directing expression of said human Tau protein in the nervous system of a mouse; and
  - (c) a targeting sequence which facilitates integration of said vector into the genome of said mouse so as to prevent expression of equivalent Tau protein or a related or equivalent protein from said animal in favour of said human Tau protein.
53. A vector according to claim 52 further comprising a sequence encoding a reporter molecule.
54. A vector according to claim 53 wherein said reporter molecule comprises the hygromycin Pgk-hyg marker gene sequence.
55. A vector according to claim 52 wherein said sequence encoding human Tau is a cDNA sequence.
56. A vector according to claim 4 wherein said cDNA sequence encodes a Tau 40 isoform.
57. A vector according to claim 52 wherein said sequence capable of directing expression of said human Tau protein is a mouse promoter.
58. A vector according to claim 57 wherein said mouse promoter is a Thy-1 promoter.
59. A vector according to claim 58 wherein said targeting sequence comprises a nucleotide sequence exhibiting a sufficient degree of homology with said sequence encoding said equivalent Tau protein in said animal or flanking sequences thereof, to facilitate integration of said vector into the genome of said mouse by homologous recombination.

60. A vector according to claim 59 wherein said targeting sequence comprises a NcoI restriction site corresponding to the unique NcoI restriction site of exon1 of the mouse wild type genome.
61. A vector according to claim 52 further comprising two loxP sites flanking either of the sequences of step (a) and (b).
62. A vector according to claim 52 further comprising a stop sequence capable of preventing expression of said human Tau protein and which sequence is flanked by two loxP sites capable of undergoing reciprocal conservative DNA recombination in the presence of Cre recombinase with the resulting excision of said stop sequence.
63. A non-human mammalian host cell transformed, transfected or injected with a vector according to claim 52.
64. A host cell according to claim 63 wherein said non-human mammalian cell is an embryonic cell.
65. A host cell according to claim 64 wherein said embryonic cell is an embryonic stem cell.